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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Bruno Holtmann

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KF ROSS PC
5683 RIVERDALE AVENUE
SUITE 203 BOX 900
BRONX, NY 10471-0900

EXAMINER

BESLER, CHRISTOPHER JAMES

ART UNIT

PAPER NUMBER

3726

NOTIFICATION DATE

DELIVERY MODE

09/13/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

EMAIL@KFRPC.COM
ereyes@kfrpc.com

Office Action Summary	Application No. 10/538,604	Applicant(s) HOLTMANN ET AL.	
	Examiner CHRISTOPHER BESLER	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> |

Continuation of Attachment(s) 6). Other: WO00/23366 and machine translation of WO00/23366.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16 – 18, 21, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 16, 17, and 21 recite the limitation "the cooling passages." There is insufficient antecedent basis for this limitation in the claim. For the purposes of this office action, examiner will interpret "the cooling passages" to refer to the "axially extending passages," as set forth in the fourth paragraph of claim 16.
4. Claim 16 also requires the input and output feed passages to be connected to the feed passages. Clearly, the feed passages cannot be connected to themselves. For the purposes of this office action, examiner will interpret this limitation to require the input and output feed passages to be connected to the axially extending passages, as set forth in the fourth paragraph of claim 16.
5. Claim 16 also recites the limitation of "the input passage" and "the output passage" in the seventh paragraph. There is insufficient antecedent basis for these limitations in the claim. For the purposes of this office action, examiner will interpret "the input passage" and "the output passage" to refer to the "input feed passage" and "output feed passage," as set forth in the fourth paragraph of claim 16.

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6. Claim 18 is defined as being dependent on itself. For the purposes of this office action, examiner will interpret claim 18 as being dependent onto claim 16.

7. Claim 26 recites the limitation "the end plates" and "the other of the end plates" in lines 3 and 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

8. Claim 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 18, which examiner interprets as being dependent upon claim 16, includes the sole limitation of the jacket being generally cylindrical, which is already a limitation of claim 16.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 16 – 18 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lacaux (U.S. Patent Number 4,917,664).

11. As to claim 16, Lacaux teaches a roller assembly for advancing and cooling a flexible web (abstract), the assembly comprising: a support (figures 2a and 2b, elements

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40 and 38; column 40, lines 11 - 14); a roller rotatable on the support about an axis (figures 2a and 2b, element 16; column 40, lines 9 – 14) and having a generally cylindrical jacket centered on the axis (figures 2a and 2b, element 32; column 4, lines 9 – 11) and formed with an array of radially throughgoing holes (figures 2a and 2b, element 60; column 4, lines 22 – 26) and an array of axially extending passages between the holes (figures 2a and 2b, element 80; column 4, lines 47 – 49), and axially spaced flanges at respective ends of the jacket (figures 2a and 2b, elements 38 and 40; column 4, lines 11 – 14), one of the end flanges being formed with at least one bridge passage into the axially extending passages (figure 2b, element 84; column 4, lines 57 – 63), the other end flange being formed with input and output feeding passages connected to axially extending passages (figure 2a, elements 96 and 106; column 4, lines 67 – column 5, line 2 and column 5, lines 12 – 16); suction means for drawing air from out of an interior inside and between the flanges of the jacket and thereby sucking air in through the holes, whereby the air being sucked in through the holes adheres the web to the jacket (figures 6 and 2b, elements 12, 16, 66, 56, 60; column 3, lines 62 – column 4, line 1 and column 4, lines 22 – 38); and cooling means capable of feeding a coolant to the input feeding passage (figure 2a, elements 94, 98, 96, and 80; column 4, line 67 - column 5, line 3) and withdrawing it from the output passage of the other end flange and thereby circulating the coolant in two axially opposite directions through the axially extending passages (figure 2a, elements 80, 106, 102, and 104; column 5, lines 9 – 12).

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12. As to claim 17, Lacaux teaches the bridge passage is an annularly continuous passage into which all of the axially extended passages open at the respective end of the jacket (figure 2b, element 84; column 4, lines 57 – 63).

13. As to claim 18, Lacaux teaches that the jacket is generally cylindrical (figure 2a and 2b, element 32; column 4, line 9).

14. As to claim 24, Lacaux teaches the roller surface is formed with shallow grooves into which the holes open (figures 1 and 2a, elements 62 and 60; column 4, lines 26 – 30).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 21 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lacaux as applied to claim 16 above.

17. As to claim 21, Lacaux does not teach the angular space between the axially extending passages nor the diameter of the axially extending passages. However, it would have been obvious to one skilled in the art, as a matter of design choice, to space the axially extending passages between 10 and 100 mm so as to allow for an adequate number of axially extending passages to adequately cool the roller. It would have been

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further obvious to set the diameters of the axially extending passages between 8 and 30 mm so as to provide an adequate amount of coolant to adequately cool the roller.

18. As to claim 22, Lacaux does not teach the diameter of the jacket. It would have been obvious to one skilled in the art, as a matter of design choice, to set the outer diameter of the jacket between 200 and 1200 mm so as to allow the roller enough surface area to properly transport the web.

19. As to claim 23, Lacaux does not teach the number of holes in the jacket. It would have been obvious to one skilled in the art, as a matter of design choice, to provide between 1 and 100 holes per 100 cm² of the outer surface area of the jacket, to ensure that enough air is sucked into the jacket to allow the web to properly adhere to the roller.

20. Claims 19 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lacaux as applied to claim 16 above, and further in view of Wenzel (U.S. Patent Number 6,129,652).

21. As to claim 19, while Lacaux teaches a jacket, Lacaux does not teach the material comprising the jacket. Wenzel teaches a roller assembly for advancing and cooling a flexible web (abstract), the assembly comprising: a support (figure 1, elements 5 and 6; column 4, lines 29 – 32) and a roller rotatable on the support about an axis (figure 1, element 2; column 4, lines 29 - 32) and having a generally cylindrical jacket centered on the axis (figure 1, element 3; column 4, lines 26 - 27). Specifically, Wenzel teaches the jacket comprising of aluminum which is known to have a thermal conductivity of at least 100 W/(m K) (figure 1, element 3, column 4, line 33). It would have been obvious to one skilled in the art to form the jacket of Lacaux from aluminum,

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as taught by Wenzel, because Wenzel teaches that forming the jacket from aluminum provides the advantage of a jacket having favorable thermal conductivity properties for cooling the roll (column 4, lines 13 – 16).

22. As to claim 20, while Lacaux teaches a jacket, Lacaux does not teach the material comprising the jacket. Wenzel teaches a roller assembly for advancing and cooling a flexible web (abstract), the assembly comprising: a support (figure 1, elements 5 and 6; column 4, lines 29 – 32) and a roller rotatable on the support about an axis (figure 1, element 2; column 4, lines 29 - 32) and having a generally cylindrical jacket centered on the axis (figure 1, element 3; column 4, lines 26 - 27). Specifically, Wenzel teaches the jacket comprising of aluminum (figure 1, element 3, column 4, line 33). It would have been obvious to one skilled in the art to form the jacket of Lacaux from aluminum, as taught by Wenzel, because Wenzel teaches that forming the jacket from aluminum provides the advantage of a jacket having favorable thermal conductivity properties for cooling the roll (column 4, lines 13 – 16).

23. Claims 25 - 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Lacaux as applied to claim 16 above, and further in view of Holtmann (International Application Publication Number WO00/23366).

24. As to claim 25, Lacaux does not teach a tube, an axially extending partition, or an axially spaced partition. Holtmann teaches a roller assembly for advancing a flexible web (abstract), the assembly comprising: a support (figure 2, element 27; machine translation page 2, paragraph 10); a roller rotatable on the support about an axis (figure 2, elements 29 and 1; machine translation page 2, paragraph 10) and having a

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generally cylindrical jacket centered on the axis and formed with an array of radially throughgoing holes (figure 2, element 1; machine translation page 1, paragraph 12); suction means for drawing air from out of an interior inside and between the flanges of the jacket and thereby sucking air in through the holes (figure 4, elements 18 and 19; machine translation page 1, paragraph 14 - page 2, paragraph 1), whereby the air being sucked in through the holes adheres the web to the jacket (figure 1, elements 7, 8, and 2; machine translation page 1, paragraphs 7 and 8). Holtmann further teaches the roller having a tube coaxially inside the jacket and fixed in the support (figure 2, element 11; machine translation page 2, paragraph 2), axially extending and angularly spaced partitions extending and angularly spaced partitions extending radially from the tube to an inner surface of the jacket (figure 2, elements 30 and 31; machine translation page 2, paragraph 11 - page 3, paragraph 1), and axially spaced partitions extending generally perpendicular to the axis from the tube between the axially extending partitions (figure 1, elements 3 – 6; machine translation page 1, paragraph 14 – page 2, paragraph 1) and defining therewith inside the jacket a compartment in which an angularly and axially limited region of the inner jack surface is exposed (figure 1, elements 7 - 9; machine translation page 1, paragraph 14 - page 2, paragraph 1), the suction means opening only through the tube into the compartment, whereby air is only drawn through the holes over the limited region of the jacket (figures 2 and 4, elements 11, 18 and 19; machine translation page 1, paragraph 14 – page 2, paragraph 1). It would have been obvious to attach the tube of Holtman to the suction means of Lacaux and to further include the partitions of Holtman in the roller of Lacaux, because Holtman teaches that the tube and

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partitions act to more control the area of suction, which results in a roller better able to transport the web (machine translation page 2, paragraph 6 – 8).

25. As to claim 26, Holtmann teaches a bearing supporting an end plate on the tube (figure 2, elements 33 and 34; machine translation page 3, paragraph 1) and bearings supporting another end plate on the other side of the tube and on the support (figure 2, elements 25 and 26; machine translation page 2, paragraph 10).

26. As to claim 27, Lacaux teaches the roller further comprising a drive means including a drive wheel connected to one of the end plates for rotating the roller about the axis (figure 2b, element 74; column 4, lines 44 – 46).

27. As to claim 28, Holtmann teaches the axially spaced partitions being axially shiftable (figure 1, elements 3 – 6; page 2, paragraph 6).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BESLER whose telephone number is (571)270-5331. The examiner can normally be reached on 7:30 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER BESLER/
Examiner, Art Unit 3726

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726